

Appl. No. 09/989,640
 Atty. Docket No. 8342M
 Amtd. Dated 3/17/2004
 Reply to Office Action of 10/15/2003
 Customer No. 27752

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-55 (Canceled)

Claim 56 (Amended).

56. A method using [[the]] Correlation I: [[of Claim 1]]

$$S = 3.246(\sqrt{t\#diSi}) - 1.880(\sqrt{\%Si}) - 0.9066\sqrt{t\#EO} + 17.70 \quad (I)$$

wherein t#diSi is the average total number of the Si(CH₃)₂O units in the molecule; t#EO is the average total number of the ethyleneoxy CH₂CH₂O units in the molecule; %Si is the weight percent of all siloxane units in the molecule; and the softness index S is at least about 10;

to design novel good performing polyalkyleneoxy silicones for use as fabric softening active in an aqueous fabric softening composition for direct application to fabric, and/or for use in fabric softening methods and/or articles of manufacture comprising said fabric softening compositions, said method comprises the following steps:

- (a) Choose a desired S value, typically at least about 20;
- (b) Set a desired average molecular weight, MW, being typically from about 7,500 to about 140,000;
- (c) Set a desired %EO (weight % of all ethyleneoxy EO units in the molecule), then derive t#EO (the average total number of ethyleneoxy units in the molecule) with t#EO being typically from about 100 to about 1,800;
- (d) Choose the type of polyalkyleneoxy polysiloxane selected from polyethyleneoxy polysiloxane or polyethyleneoxy/ polypropyleneoxy polysiloxane, then set the desired %Si value;
- (e) Use the desired values for S, t#EO and %Si to calculate t#diSi (the approximated total average number of dimethylsiloxane SiMe₂O units in the molecule), using Correlation I, wherein t#diSi is typically about from about 40 to about 530;

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- (f) Calculate %diSi (weight % of total dimethylsiloxane units) and %triSi (weight % of the terminal trimethylsiloxane units); and
- (g) Calculate t#linkSi (the average number of the polyalkyleneoxy pendant groups).

Claims 57-58 (Canceled)